

# Single Axis Robots RSH1 - Slider Type



CE

See notes on CE Marking. P.440

## Feature: Large, Heavy Load Capacity Actuators

Applicable to Remote Command Control, Remote I/O Control (CC-Link / DeviceNet Specification), Parallel I/O Control and Online Command Control (RS232C Specification).



Components: Actuator / Controller / Cable / (Battery) / (Noise Filter)

### Accessories

Accessories	Controller I/O Specifications		
	NPN / PNP	CC-Link	DeviceNet
A	Instruction Manual (CD-ROM) / Power Connector / EXT Connector / Dummy Connector		
		CC-Link Connector	DeviceNet Connector

### Robot Material / Surface Treatment

Components	Base Frame	Guide Rail	Slider	Side Cover
M Material	Aluminum	Steel	Aluminum	Aluminum
S Surface Treatment	Anodize	-	Anodize	Anodize

### General Specifications

Ball Screw	Motor	Position Detector	Operating Ambient Temperature / Humidity
Ø12 (C10 Rolled)	AC Servo 100W	Resolver	0~40°C, 35~85%RH (No Condensation)

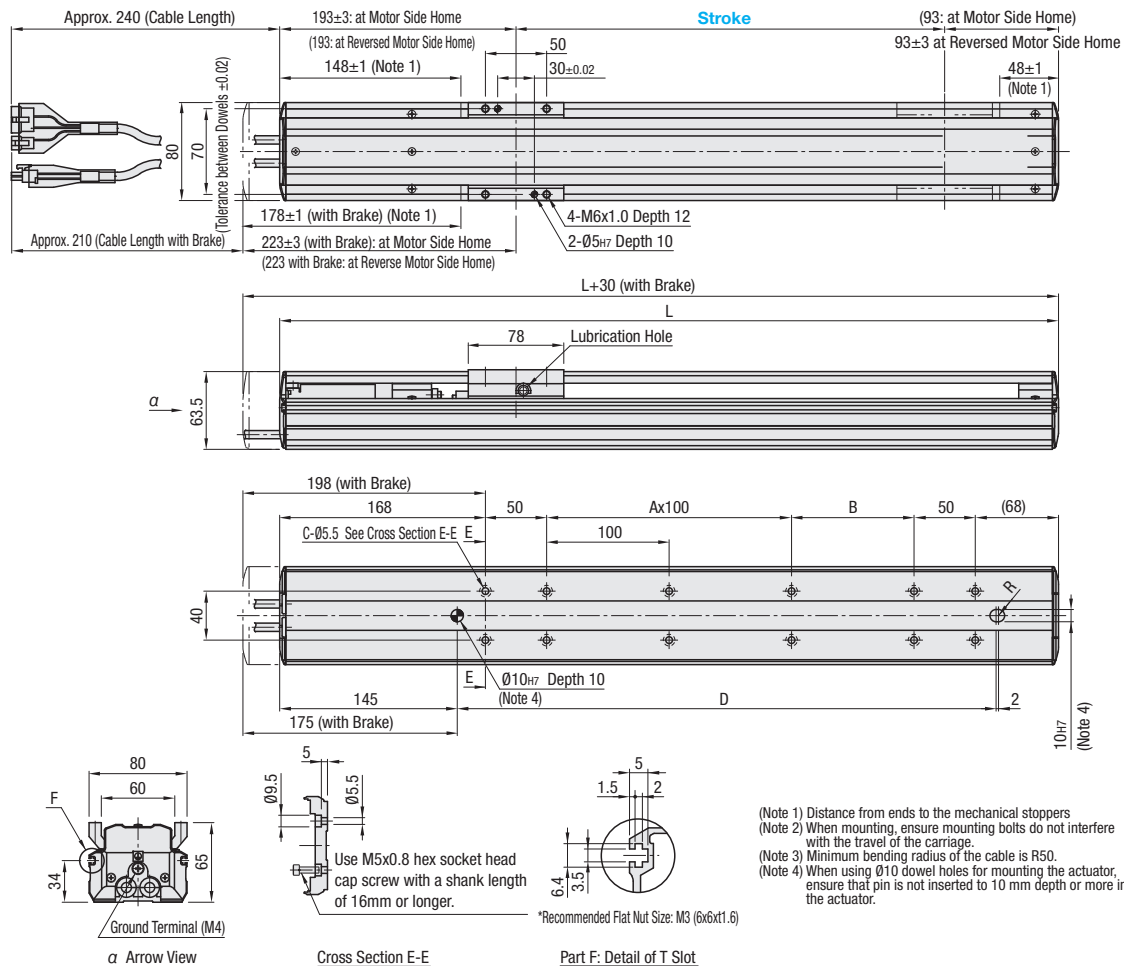
Controller Specifications P.437 Cycle Time Graph P.441 Clean Room Specifications are available on our website.

## Standard Specifications

Terminology & FAQ P.440

Type	Lead (mm)	Positioning Repeatability (mm)	Max Load Capacity (kg)		Rated Force (N)	Maximum Velocity (Note) (mm/sec)	Stroke (mm)	Rated Running Life	Input Power Supply	Maximum Positioning Point
			Horizontal	Vertical						
RSH1	06	±0.02	40	8	283	360~180	150~800 (50 Pitch)	10,000 km or More	Single-phase AC 100~115V 200~230V ±10%	255 points
	12		20	4	141	720~360				
	20		12	-	84	1200~600				

(Note) Maximum velocity varies depending on the strokes. Please see Maximum Velocity Table on the next page.



## Dimensions / Mass

Type	Dimensions / Mass	Stroke (mm)													
		150	200	250	300	350	400	450	500	550	600	650	700	750	800
RSH1	L (mm)	436	486	536	586	636	686	736	786	836	886	936	986	1036	1086
	A (mm)	0	0	1	1	2	2	3	3	4	4	5	5	6	6
	B (mm)	100	150	100	150	100	150	100	150	100	150	100	150	100	150
	C (mm)	8	8	10	10	12	12	14	14	16	16	18	18	20	20
	D (mm)	240	290	340	390	440	490	540	590	640	690	740	790	840	890
	Mass (kg)	3.6	3.9	4.2	4.4	4.7	5.0	5.3	5.6	5.9	6.2	6.4	6.7	7.0	7.3

The mass of w/ brake type becomes 0.3kg heavier.

Part Number	Selection							
	Type	Lead (mm)	With or w/o Brake (P)	Controller (2)	I/O Module	W/ or w/o Noise Filter (3)	Cable	Stroke (mm)
RSH1	06	None: Leave blank Included: B		Specifications Absolute Encoders (w/ Data Storage Battery) Incremental Type AC100~115V C21A C21B AC200~230V C22A C22B	NPN: N PNP: P CC-Link: C DeviceNet: D	None: F0 Included: F1 Specifications P.440	Standard Flexible 3.5m: R3 3.5m: R3 5m: R5 5m: R5 10m: R10 10m: R10	150-800 (50mm Increment)
	12							
	20							

(1) Choose "with brake" type for use in vertical applications. (W/ brake type is not available for Lead 20) (2) Controllers are shipped with preset parameters for each type. Data storage batteries are outside the scope of RoHS Directive. (3) This product needs a noise filter. When purchasing separately, please select "none". Be sure to install a surge absorber on the primary side of a noise filter. For details, please see the Instruction Manual.

Ordering Example: Part Number - Controller - I/O Module - W/ or w/o Noise Filter - Cable - Stroke  
**RSH106B - C22A - N - F1 - 3 - 400**

Days to Ship [Configure Online](#)

Price [Configure Online](#)

## Robot Body Price

Part Number	Unit Price 1~5 pc(s).						
	Stroke (mm)						
	150 / 200	250 / 300	350 / 400	450 / 500	550 / 600	650 / 700	750 / 800
RSH1_							
RSH1_B							

## Controller Price

I/O Module	Type	Unit Price 1~5 ps(s).	
		C21A / C22A Absolute Encoders (w/ Data Storage Battery)	C21B / C22B Incremental Type
N			
P			
C			
D			

## Cable Price

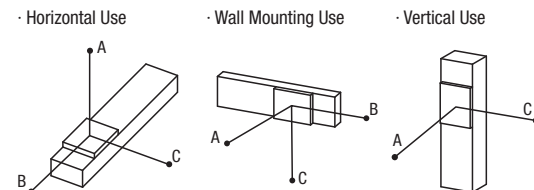
Cable (Standard)	Unit Price 1~5 pc(s).	Cable (Flexible)	Unit Price 1~5 pc(s).
3		R3	
5		R5	
10		R10	

## Noise Filter Price

W/ or w/o Noise Filter	Unit Price 1~5 pc(s).
None: F0	
Included: F1	

**Note**  
 Power interruption circuit is not installed in this controller. Please be sure to provide an external power interruption circuit and form an emergency stop circuit. Circuit Examples P.438

## Allowable Overhang Load



Lead	Mass	mm			Lead	Mass	mm			Lead	Mass	mm		
		A	B	C			A	B	C			A	B	C
06	40kg	113	0	8	06	40kg	0	0	0	06	8kg	46	46	
	30kg	140	6	20		30kg	0	0	14		6kg	69	69	
	20kg	214	16	43		20kg	25	9	157		4kg	113	113	
12	10kg	403	43	113	12	10kg	94	36	369	12	2kg	244	245	
	20kg	103	14	33		20kg	15	6	55		4kg	98	99	
	15kg	139	22	51		15kg	33	15	100		3kg	137	138	
20	10kg	203	39	87	20	10kg	69	32	172	20	2kg	214	216	
	5kg	364	89	188		5kg	171	81	340		1kg	447	448	
	12kg	85	25	43		12kg	27	15	55					
	10kg	100	32	54		10kg	37	23	72					
	5kg	197	76	120		5kg	104	67	174					

When overhang equals 0, use linear guides with selected unit to support load mass.

Alterations Part Number - Controller Type - I/O Module Type - Noise Filter - Cable - Stroke - (G, E, etc.)  
**RSH106B - C22A - N - F1 - 3 - 400 G-E**

Alterations	Grease Type Alteration	Change of Home Position	Handy Terminal Standard Specification	Handy Terminal w/ Deadman's Switch	Support Software w/ USB Communication Cable	Support Software w/ D-Sub Communication Cable	I/O Cable	Robot Instruction Manual	Controller Instruction Manual
Code	G	E	H	D	S	R	T	MJ / ME	KJ / KE
Spec.	Grease is changed to low particle generation grease. (NSK LG2)	The home position is relocated to the opposite side of the motor.	Handy Terminal is included. Spec. P.415, 439	Handy Terminal w/ Deadman's Switch is included. Spec. P.415, 439	Support Software w/ USB Communication Cable is included. Spec. P.415, 439	Support Software w/ D-Sub Communication Cable is included. Spec. P.439	I/O Cable is included. Required for NPN/PNP configurations. Spec. P.416, 439	Instruction Manual for robot main structures is included. M.J. Japanese Language ME: English Language	Instruction Manual for controllers is included. K.J. Japanese Language KE: English Language

For optional items, see P.439 Optional items can be purchased more economically as Alterations than as single items.  
 Point data requires Handy Terminal or Support Software.  
 Parallel Communication I/O Control requires I/O Cable.